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## A FORERUNNER OF MILTON

A careful reading of two significant passages of *Paradise Lost* warrants the assumption that Milton was one of the progressive thinkers who accepted the Copernican theory. Lord Bacon in *The Advancement of Learning* had dismissed it as untenable, and Milton's friends, the Smectymnuans, in 1641 had called it absurd. Other reasons, however, impelled Milton to base his epic on the old-established Ptolemaic system. About it were gathered the rich imaginative associations that the poet needs, while the rival theory was still a debated question in the schools. Nevertheless, it seems certain that Milton's scientific studies at Cambridge and Horton had convinced him of the truth of Copernicus' teaching, and that he gave it as unguarded approval as was possible in a poem that, for poetic reasons, rests on another philosophical belief.<sup>1</sup>

A much more positive argument for the Copernican theory is found in Henry More's *Psychathanasia*, published at Cambridge in 1642 and reprinted in 1647.<sup>2</sup> The author entered Christ's College in 1631, shortly before Milton left it. More's tutor there was William Chappell, who had served as Milton's tutor before his rustication. More also contributed a short poem in Greek to the memorial for Edward King, in which *Lycidas* first appeared. These facts at once arrest attention. But More remained in close touch with the university throughout his life, and, with his fellow Platonists, followed the advance of scientific investigation more closely than Milton, disgusted as he was with academic methods, cared to do. In the *Psychathanasia*, then, he appeared as the outspoken and somewhat discursive champion of the new astronomical theories. Twenty-five years later Milton, substituting suggestion for argument, took virtually the same position that his predecessor had held.

More's case against the "stiff-standers for ag'd Ptolemee" presents a strange combination of Platonic mysticism and rational science. His first argument is "theosophical." The neo-Platonists assumed the existence of a potent spiritual force as the moving principle of the universe. More calls this force, in Plato's language,

<sup>1</sup> *P. L.*, 4, 592-597; 8, 15-178.

<sup>2</sup> Book 3, canto 3.

“that bright Idee of steddie Good,” and, in Christian terminology, “that eternall light which we call God.” About it, he asserts, “all things in distinct circumference move.” But this central force of the universe is the archetype of the sun in the solar system, and about the sun, therefore, the planets must revolve;

So doth the Earth one of the erring Seven  
Wheel round the fixèd sunne, that is the shade  
Of stedly Good, shining in this Out-heaven.

Such mystical reasoning would be convincing only to an early Platonist, and the angel Raphael in *Paradise Lost*, in speaking of the earth as one of the seven revolving planets, wisely says nothing of it.

Having thus “fairly prov’d the sunnes stability,” More has next to demonstrate the revolution of the earth on its axis, by which he would explain the succession of day and night. His opponents judged him mad for so seeming

to shake the stable earth,  
Whirling her round with turns prodigious.

If the earth should spin so rapidly, they argued, objects would hurtle from its surface into space, trees would whistle in the wind as they rush madly on, and beasts, hiding in terror, would be brained in their caves. Furthermore, clouds could rise only in the east, and an arrow shot skyward could not fall at the bowman’s feet. All these objections might have been refuted from Galileo’s experiments on falling bodies, which had proved the force of gravitation. Strange as it may seem, however, in so progressive a thinker, More flatly rejected the theory of gravitation.

What they pretend of the Earths gravity,  
Is nought but a long taken up conceit:  
A stone that downward to the earth doth hy  
Is not more heavie then dry straws that jet  
Up to a ring, made of black shining jeat.

To account, then, for the impulsion of all objects to the earth’s center, More assumes the existence of a central spirit of the earth that binds all things to it;

Gravity is nought but close to presse  
Unto one Magick point, there near to enter;  
Each sympathetick part doth boldly it adventure.

But this force is spiritual, not physical. The arrow, he explains, "hath one spirit with this sphere" and in the air moves eastward with it. All else is bound to the earth by the same spiritual sympathy;

So every stone on earth with one commotion  
Goes round, and yet withall right stiffly strives  
To reach the centre.

With such reasoning More answered the objections raised against the supposition of the earth's rotation.

In the positive argument that follows this refutation, More reasons on broader principles and seemingly anticipates Milton. Adam, we remember, in conversation with Raphael, wonders that the sun and stars are forced to revolve in such measureless orbits about the tiny earth, "that better might with far less compass move." More, likewise, on the authority of Moses ben Maimun, argues that

each good Astronomer is ty'd  
To lessen the heavens motions vainly multiply'd.

and that it is wrong to attribute these circuits to the sun and stars, since

The earths motion might  
Save that so monstrous labour, with lesse pains,  
Even infinitely lesse.

More anticipates Milton, also, in rejecting as unnecessary the whole complicated theory of cycle and epicycle, elaborated to explain the apparently irregular movements of the stars. Adam is shown by Raphael the presumption of astronomers who "build, upbuild, contrive to save appearances," and

Gird the Sphere  
With Centric and Eccentric scribbled o'er,  
Cycle and Epicycle, Orb in Orb.

But Milton's criticism of the ingenuity of the astronomers is less caustic than More's:

Here 'gins the wheelwork of the Epicycle:  
Thus patch they Heaven more botch'dly then old cloths  
This pretty sport doth make my heart to tickle  
With laughter, and mine eyes with merry tears to trickle.

Both More and Milton see that the Copernican theory has rendered all this complicated figuring needless;

All this disordred superfluity  
 Of Epicycles, or what else is shown  
 To salve the strange absurd enormity  
 Of staggering motions in the azure skie;  
 Both Epicycles and those turns enorm  
 Would all prove nought, if you would but let flie  
 The earth in the Ecliptick line yborn.

The *Psychathanasia* presents the opposed astronomical theories more comprehensively than Milton could do in these explanatory passages of his epic. But there is nothing in Milton's explanation that was not to be found in More's poem twenty-five years earlier. One need not therefore add another item to the ever growing list of sources for *Paradise Lost*. A reading of the *Psychathanasia* simply shows that Milton was as well grounded in seventeenth-century scientific teaching as in history, literature, and philosophy. The two poems, also, taken so together, illustrate the distinction made in *Paradise Regained* between appreciative, creative scholarship and the mere acquisition of facts.

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#### SOURCES OF HEINE'S *SEEGESPENST*

No investigation of the sources of Heine's well-known *Seegespenst* has hitherto been undertaken. Indications point very plainly, however, to the fact that Heine's real inspiration for the main outlines as well as for a number of details of his poem was Ludwig Tieck's *Der Pokal*. (*Schriften*, Berlin, 1828, vol. 4.)

*Der Pokal* has for its chief motive the illusion of finding again a long-lost love, young and living as in former days. This motive is foreshadowed in the vision of the cup and amplified in the second portion of the story. In the account of the cup-vision the effect is of a subjective sort, due first to the intent gazing upon the cup and second to the magic influence of the aged Albert. In part two of the story, on the other hand, the effect produced upon Ferdinand is more in the nature of delusion, superinduced by a combination of outward circumstances turning the mind of Ferdinand to the past, particularly to the scene of the cup-vision. The